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## Corporate Response to Climate Change: What do Stakeholders Expect?

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### Abstract

This paper examines different perceptions on climate change management and disclosures from the viewpoint of stakeholders in Indian Corporations. The paper shows how climate change strategies and disclosures at different organizational levels can be linked to the societal and competitive contexts that companies face, embedded in a stakeholder view. Companies are divided according to certain attributes - location, geographical spread, industry, degree of vertical integration and diversification, companies prioritizing particular stakeholder groups, and their climate change strategies and disclosures including internal measures, supply-chain measures and/or market-based measures that move beyond the supply chain are analyzed. This paper attempts to illustrate how institutional, resource-based, supply chain and stakeholder views are all important to characterize and understand corporate strategic responses to a sustainability issue.

### Keywords

climate change; corporate response; stakeholders; perception; environmental accounting; India

## Corporate Response to Climate Change What do Stakeholders Expect?

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Companies are divided according to certain attributes - location, geographical spread, industry, degree of vertical integration and diversification, companies prioritizing particular stakeholder groups, and their climate change strategies and disclosures including internal measures, supply-chain measures and/or market-based measures that move beyond the supply chain are analyzed.

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### 1. Introduction

Climate change is one of the environmental issues that has increasingly attracted corporate attention in recent years in India - a range of stakeholders, including governments, have started pay more attention to the potentially very serious consequences of climate change. They have also become increasingly aware of the need to take action on climate change. Companies have developed different strategies to deal with climate change. Since 1995, companies' political positions have gradually changed from opposition to climate measures to a more proactive approach or a "wait-and-see" attitude, and many have started to take market steps to be prepared to deal with regulation, or to go beyond that, considering risks and opportunities. Some companies apparently rely on the course set by their national governments following the adoption of the Kyoto protocol, and wait until the actual implementation of climate policy before they take action. Others, however, have decided to

launch initiatives for emission reduction to anticipate future policy, societal or competitive developments, thus facilitating compliance or the development of green resources and capabilities (Kolk and Pinkse, 2004, 2005a, b).

Corporate responses to climate change differ considerably because of location-specific, industry-specific and company-specific factors (Kolk and Levy, 2004). Companies have to comply with different regulations depending on their global spread and the type of industries and activities in which they are involved. Public pressure to take action on climate change is to some extent company-specific, because it often relates to the reputation that a company has built up over the years. Some companies are affected directly by climate change as a result of changing weather patterns or ensuing government policy, while others are more indirectly involved through their stakeholders, broadly defined.

In view of these peculiarities, climate change is an issue that clearly shows the importance of different dimensions of strategic management as noted in the call for papers for the 2006 EABIS conference. Institutional, resource-based, supply chain and stakeholder perspectives are all important to characterize and understand current corporate strategic responses to this sustainability issue. In this paper, we will analyze aspects of climate change management in order to bring awareness amongst the stakeholders and to shed more light on what “strategic corporate climate change management”. Given this issue is so important for corporate sustainability, we think that this paper makes a contribution to both research and practice.

## **2. Prior Research**

The insights discussed in this paper build on previous research on the more specific elements of corporate responses to climate change (Kolk, 2001; Kolk, n.d.; Kolk and Levy, 2004; Kolk and Pinkse, 2004, 2005a, b, c; 2007; Levy and Kolk, 2002; Pinkse, 2007). We drew particularly on the empirical papers in this body of work, as this paper is intended for an academic audience and we felt that these empirical papers offered an appropriate base for this paper particularly those which adopted a strategic stakeholder theoretical approach (frequently institutional or resource-based).

Towards a strategic stakeholder management approach, we adopted Freeman’s (1984, p. 46) definition of stakeholders as “any group or individual who can affect or is affected by the achievement of the organization’s objectives”, it has been argued that one can view the natural environment as a potential stakeholder of an organization (Mitchell et al., 1997). If we accept this starting point, then it is clear that the natural environment forms a stakeholder if it is affected by corporate activity, but it is not always apparent that the natural environment can also potentially influence a company in reaching its objectives. Interestingly, climate change is a case in point where the environment has the potential to significantly affect business. Abrupt changes in global climate conditions can seriously disrupt a company’s activities because of changing weather patterns or weather-related catastrophes. Yet, this direct impact on business is currently not as pressing as the indirect impact, which can be attributed to other stakeholders that influence a company (Frooman, 1999; Rowley, 1997). For example, (inter)national governmental and non-governmental organizations are putting considerable pressure on business to reduce greenhouse gas emissions.

The relevance of the indirect impact of climate change on business depends, firstly, on the type of stakeholders that put a claim on a company (Mitchell et al., 1997). For many companies, the government will be one of the most important stakeholders that demands action to reduce emissions (Kolk and Pinkse, 2004). In recent years many new policies have emerged that regulate energy use (particularly from fossil fuels), such as a carbon tax,

emissions trading schemes and technology-oriented measures to stimulate renewable energy (Sorrell and Sijm, 2003). However, there are other salient stakeholders that put climate change on corporate agendas; these include non-governmental organizations (NGOs), investors, suppliers, customers and competitors.

Secondly, companies will address stakeholder claims of those groups whose claims they see as most important (Mitchell et al., 1997). In other words, companies can prioritize certain stakeholders at the cost of others, which can be explained by resource dependence theory. (Kolk and Pinkse, 2007).

Organizations will pay more attention to external actors who control resources that are relatively critical for an organization to reach its objectives (Jawahar and McLaughlin, 2001; Pfeffer and Salancik, 1978). Jawahar and McLaughlin (2001) argue that the prioritization of particular stakeholder groups depends on a company's stage in the organizational life cycle. However, they also note that other factors, such as pressure from regulation and technological innovation or industry membership, lead companies to deal with certain stakeholders more than others. This clearly points at a consideration of institutional factors as well.

### **3. Research Methods**

Below we will examine attributes that might determine to what extent a company relies on stakeholders who control critical resources or can be relatively independent because it owns these critical resources. This will in turn lead to predictions about the type of stakeholders that are expected to be managed more proactively, resulting in a corporate climate strategy that contains internal measures, supply-chain measures, and/or market-based measures. These strategic options for dealing with climate change, developed in earlier work (Kolk and Pinkse, 2005a), operate on different organizational levels: respectively company, supply chain or beyond the supply chain. With the latter two, companies transcend organizational boundaries (Sharma and Henriques, 2005) to try to realize emission reductions. The choices at various organizational levels originate not only from the considerable flexibility of emerging climate policies, such as the introduction of an emissions trading scheme in the EU and a voluntary emission intensity target and technology strategy in the US, but also from the more competitive approach that can be taken towards the natural environment (cf. Hart, 1995; Reinhardt, 1999).

The range of activities at the different organizational levels will now consecutively be analyzed somewhat further, reckoning with the societal and competitive contexts with which companies are confronted. We will first discuss the influence of share holders, NGOs, suppliers, stock brokers, academicians, followed by Financial Institutions & banks, employees and customers, and finally competitors, research analysts and public.

This research paper aims to develop a more integrated perspective, embedded in a stakeholder view that forms the starting point. This will be subsequently linked to the climate strategies and related capabilities of companies, reckoning with societal and competitive contexts and disclosure. We thus provide an overview of the different elements relevant to business regarding climate change, and, for academic purposes, posit areas for further empirical research.

### 3.1 Sample Selection

**Table No. 1-**Description of Stakeholders surveyed

Category	Number
1. Shareholders /Investors	300
2. NGOs	150
3. Suppliers	100
4. Stock Brokers	50
5. Academicians	50
6. Financial Institutions and Banks	50
7. Employees	300
8. Customers	200
9. Competitors	50
10. Research Analysts	50
11. Public	200
<b>Total</b>	<b>1,500</b>

### 4. Results and Discussion

The concept of management of climate change is coined as an important component of corporate social and environmental responsibility. Even the concept is new to Indian corporate sector, some amount of research studies in developed countries have demonstrated its relevance to Indian companies too. Respondents are asked by way of a yes/no question whether climate change issues are material to their decisions concerning relation with corporates. The results are reported in Table 2, 79.88 per cent of the respondents believed that manufacturing companies are more likely to set targets for green house gas emission as a practice of climate change management. Of the total shareholders who responded, 81.03 per cent responded positively in favour of first hypothesis. Similarly academics and banks & FII have viewed the same, while 96 per cent of the research analyst also responded in the affirmative. These results can be contrasted with the responses from the group of suppliers and stockbrokers (see Table 2).

**Table No. 2** Stakeholders responding that companies must set targets for greenhouse gas reduction.

*Hypothesis No. 1 Manufacturing Companies are more likely to set targets for Green house gas reduction than service companies.*

Sl.No	Stakeholders	No. Responding to This Question	No. responding manufacturing companies must set targets	% of Group
1.	Shareholders	253	205	81.03
2.	NGOs	148	126	85.14
3.	Suppliers	65	35	53.85
4.	Stock Brokers	38	28	73.68
5.	Academicians	50	48	96.00
6.	FII and Banks	45	39	86.67
7.	Employees	235	198	84.26
8.	Customers	198	157	79.29
9.	Competitors	30	24	80.00
10.	Research Analysts	50	48	96.00
11.	Public	200	160	80.00
	<b>Total</b>	<b>1,312</b>	<b>1,048</b>	<b>79.88</b>

A chi-square test was conducted to determine if there was a significant difference between the total number of respondents who felt manufacturing companies are more likely to set targets for green house gas emission and those who did not. This study was undertaken with an

assumption of minimum amount of expectation of information on climate change practices of a company from the annual reports by the users. Hence the chi-square test was administered with the purpose of measuring the deviation between the expected values and observed values deviations arising through actual survey. And this is test is well built in for this type of studies. The other tests are not applied due to characteristics of the collected data.

The respondents are selected by the author conveniently for the purpose of this study. Shareholders are picked by the author though his survey conducted on behalf of Institute for Capital Market Research of Delhi on household consumption survey and academicians are selected from Degree college lecturers teaching Management and environmental sciences. The selection of employees are done from both public and private sectors in Visakhapatnam City. Similarly, banks and financial institution are chosen from the city itself. The proportion of all respondents who considered that manufacturing companies are more likely to set targets for green house gas emission (79.88 per cent) is found to be significantly greater than those respondents who did not support this view (chi-square 2.206  $p < 0.05$ ). Additional testing was conducted to determine if this significant difference is consistent across all categories of users. The proportion of research analysts and academicians who viewed climate management issues as material to their decisions is significantly greater than those who responded negatively.

Similarly in respect of other hypotheses, the response of other stakeholders are very impressive. In case of second hypothesis, out of total respondents, 90.83 per cent of respondents expressed companies must introduce internal measures to reduce green house gas emissions at large (Table 3). Statistically there was no significant difference between the total number of respondents (0.000896  $p < 0.05$ ) who felt that companies must introduce internal measures that reduce green house gas emissions.

**Table No. 3** Stakeholders response to introduce internal measure to reduce green gas emissions.  
Hypothesis No. 2 Companies must introduce internal measures that reduce green house gas emissions.

Sl.No	Stakeholders	No. Responding to This Question	No. responding companies must introduce internal measures	% of Group
1.	Shareholders	285	274	96.14
2.	NGOs	150	145	96.67
3.	Suppliers	74	70	94.59
4.	Stock Brokers	41	40	97.56
5.	Academicians	50	50	100.00
6.	FII and Banks	48	47	97.92
7.	Employees	278	240	86.33
8.	Customers	200	200	100.00
9.	Competitors	42	32	76.19
10.	Research Analysts	50	50	100.00
11.	Public	200	140	70.00
	<b>Total</b>	<b>1,418</b>	<b>1,288</b>	<b>90.83</b>

When the respondents were asked about ratification of Kyoto Protocol by companies with large production facilities, the response was good, nearly 89.36 per cent. NGOs and stock brokers felt cent percent. Public and employees have responded equally for this hypothesis (Table 4) and there was no statistical difference between the total respondents (0.03596  $p < 0.05$ ).



**Table No. 4** Stakeholders response to ratify Kyoto Protocol

*Hypothesis No. 3 Companies with large production facilities are more likely to ratify Kyoto Protocol*

Sl.No	Stakeholders	No. Responding to This Question	No. responding companies to ratify Kyoto Protocol	% of Group
1.	Shareholders	210	187	89.05
2.	NGOs	132	132	100.00
3.	Suppliers	57	50	87.72
4.	Stock Brokers	29	29	100.00
5.	Academicians	42	35	83.33
6.	FII and Banks	36	30	83.33
7.	Employees	246	225	91.46
8.	Customers	200	154	77.00
9.	Competitors	36	31	86.11
10.	Research Analysts	42	40	95.24
11.	Public	154	145	94.16
	<b>Total</b>	<b>1,184</b>	<b>1,058</b>	<b>89.36</b>

A significant response was given by the respondents in case of hypothesis 4, where shareholders, and NGOs response was 90 per cent and over all response was 88.02 per cent (Table 5). Another significant response was given by customers who believed companies without environmental policy must implement stringent measures to combat green house gas emissions than companies with environmental policy. There is no statistical difference among the respondent for this hypothesis (0.00923  $p < 0.05$ ).

**Table No. 5** Stakeholders response to implement wide variety of measure

*Hypothesis No. 4 Companies without an Environmental Policy, must take a wider variety of measures than those companies with Environmental Policies.*

Sl.No	Stakeholders	No. Responding to This Question	No. responding companies to ratify Kyoto Protocol	% of Group
1.	Shareholders	241	218	90.46
2.	NGOs	150	140	93.33
3.	Suppliers	55	50	90.91
4.	Stock Brokers	39	36	92.31
5.	Academicians	50	41	82.00
6.	FII and Banks	29	25	86.21
7.	Employees	256	210	82.03
8.	Customers	174	142	81.61
9.	Competitors	31	28	90.32
10.	Research Analysts	41	39	95.12
11.	Public	169	158	93.49
	<b>Total</b>	<b>1,235</b>	<b>1,087</b>	<b>88.02</b>

In respect of the eleven hypotheses referred to in this paper, less vertically integrated companies are more likely to implement supplier related measures to reduce green house gas emissions than highly integrated companies, the response of more or less equal to the above hypothesis. Suppliers and NGOs response was great followed by stock brokers and competitors (Table 6) without any significant difference among the respondents as per chi square test ( 0.0457  $p < 0.05$ ).



**Table No. 6** Stakeholders response to implement supplier related measures

*Hypothesis No. 5 Less vertically integrated companies are more likely to implement supplier related measures to reduce green house emissions than highly integrated companies.*

Sl.No	Stakeholders	No. Responding to This Question	No. responding less vertical companies to implement supplier related measures	% of Group
1.	Shareholders	222	192	86.49
2.	NGOs	141	125	88.65
3.	Suppliers	66	61	92.42
4.	Stock Brokers	26	25	96.15
5.	Academicians	36	35	97.22
6.	FII and Banks	26	21	80.77
7.	Employees	198	174	87.88
8.	Customers	154	142	92.21
9.	Competitors	29	27	93.10
10.	Research Analysts	36	34	94.44
11.	Public	147	126	85.71
	<b>Total</b>	<b>1,081</b>	<b>962</b>	<b>88.99</b>

In respect of other hypothesis, the responses of the respondents varies between 79 per cent to 94 per cent (Table 7 to Table 12) which shows that there is a great demand for better and efficient climate change management by Indian Corporates. The highest response was given for the last hypothesis, where share holders along with other respondents responded which shows 97 per cent (Table 12). The lowest response was given to 8<sup>th</sup> hypothesis, where share holders along with other respondents like NGOs, employees and public responded at 75 per cent out of total respondents (Table 9). For the hypothesis 6 to 11 chi square test shows that there is no statistically different between the respondents (  $0.0454 p < 0.05$ ,  $0.278 p < 0.05$ ,  $0.002874 p < 0.05$ ,  $8.85 p < 0.05$ ,  $0.00105 < 0.05$ ,  $1.105 < 0.05$  respectively).

**Table No. 7** Stakeholders response that consumer oriented-companies implement product related measures

*Hypothesis No. 6 Consumer oriented companies are more likely to implement product-related measures to reduce green house gas emissions than commodity oriented companies.*

Sl. No	Stakeholders	No. Responding to This Question	No. responding consumer oriented companies to implement product measures	% of Group
1.	Shareholders	232	198	85.34
2.	NGOs	131	120	91.60
3.	Suppliers	69	54	78.26
4.	Stock Brokers	33	31	93.94
5.	Academicians	41	40	97.56
6.	FII Banks and	32	31	96.88
7.	Employees	224	201	89.73
8.	Customers	179	169	94.41
9.	Competitors	36	32	88.89
10.	Research Analysts	41	40	97.56
11.	Public	141	120	85.11
	<b>Total</b>	<b>1,159</b>	<b>1,036</b>	<b>89.39</b>

**Table No. 8** Stakeholders response to highly diversified companies to introduce climate related measures  
*Hypothesis No. 7 Highly diversified companies are more likely to enter new climate-related measures than less diversified companies*

Sl. No	Stakeholders	No. Responding to This Question	No. responding highly diversified companies must enter climate change acts	% of Group
1.	Shareholders	278	258	92.81
2.	NGOs	150	147	98.00
3.	Suppliers	74	72	97.30
4.	Stock Brokers	39	36	92.31
5.	Academicians	50	48	96.00
6.	FII Banks and	40	35	87.50
7.	Employees	244	221	90.57
8.	Customers	181	171	94.48
9.	Competitors	41	41	100.00
10.	Research Analysts	50	42	84.00
11.	Public	184	170	92.39
	<b>Total</b>	<b>1,331</b>	<b>1,241</b>	<b>93.24</b>

**Table No. 9** Stakeholders response to highly diversified companies to introduce climate related measures  
*Hypothesis No. 8 In highly concentrated industries, market based measures taken by leading companies are more likely to be followed by others in the industry than in less concentrated industries.*

Sl. No	Stakeholders	No. Responding to This Question	No. responding highly diversified to introduce implement product measures	% of Group
1.	Shareholders	158	119	75.32
2.	NGOs	121	89	73.55
3.	Suppliers	61	49	80.33
4.	Stock Brokers	24	20	83.33
5.	Academicians	36	31	86.11
6.	FII Banks and	30	24	80.00
7.	Employees	167	127	76.05
8.	Customers	132	119	90.15
9.	Competitors	37	34	91.89
10.	Research Analysts	39	36	92.31
11.	Public	123	94	76.42
	<b>Total</b>	<b>928</b>	<b>742</b>	<b>79.96</b>

**Table No. 10** Stakeholders response to introduce climate change management practices  
*Hypothesis No. 9 Public companies listed on leading Stock Exchanges are more likely to introduce climate change management practices*

Sl. No	Stakeholders	No. Responding to This Question	No. responding consumer oriented companies to implement product measures	% of Group
1.	Shareholders	300	289	96.33
2.	NGOs	145	131	90.34
3.	Suppliers	62	51	82.26
4.	Stock Brokers	49	47	95.92
5.	Academicians	50	50	100.00
6.	FII Banks and	47	45	95.74
7.	Employees	265	210	79.25
8.	Customers	145	124	85.52
9.	Competitors	41	38	92.68
10.	Research Analysts	50	50	100.00
11.	Public	187	177	94.65
	<b>Total</b>	<b>1,341</b>	<b>1,212</b>	<b>90.38</b>

**Table No. 11** Stakeholders response to include climate change factor in investment appraisal.

*Hypothesis No. 10 Companies that are financed by Financial Institutions and Banks are more likely to include climate change factor in investment appraisal*

Sl. No	Stakeholders	No. Responding to This Question	No. responding companies to include climate change factor in investment appraisal	% of Group
1.	Shareholders	258	233	90.31
2.	NGOs	136	123	90.44
3.	Suppliers	56	51	91.07
4.	Stock Brokers	47	41	87.23
5.	Academicians	50	50	100.00
6.	FII Banks and	49	45	91.84
7.	Employees	210	181	86.19
8.	Customers	157	140	89.17
9.	Competitors	39	31	79.49
10.	Research Analysts	50	50	100.00
11.	Public	164	147	89.63
	<b>Total</b>	<b>1,216</b>	<b>1,092</b>	<b>89.80</b>

**Table No. 12** Stakeholders response to introduce green house gas emission control standards

*Hypothesis No. 11 Employee - oriented companies are more likely to introduce green house gas emission control standards*

Sl. No	Stakeholders	No. Responding to This Question	No. responding companies to introduce green house gas emission standards	% of Group
1.	Shareholders	265	258	97.36
2.	NGOs	144	140	97.22
3.	Suppliers	61	58	95.08
4.	Stock Brokers	47	44	93.62
5.	Academicians	50	50	100.00
6.	FII Banks and	47	41	87.23
7.	Employees	300	295	98.33
8.	Customers	147	132	89.80
9.	Competitors	34	30	88.24
10.	Research Analysts	50	50	100.00
11.	Public	154	128	83.12
	<b>Total</b>	<b>1,299</b>	<b>1,266</b>	<b>94.38</b>

The opinion of the respondents was also sought on certain issues relating to the climate change management and their disclosure. Specially, the stakeholders are asked whether :

- climate change management should be made mandatory on part of the Indian corporate world.
- Both Central and State Government should provide guidelines on the disclosure of climate change management practices
- The accounting professional bodies should provide guidelines on disclosure of climate change management
- The Stakeholders should insist disclosure of climate change management

A summary of their response is provided in Table 13.

**Table 13 :** Stakeholders opinion relating to climate change management practices and their disclosure

Statement	Mean	Std. Dev.	Min.	Max.
<b>All Respondents</b>				
Climate change management should be made mandatory	4.04	1.23	1	5
The Government should provide guidelines on the disclosure of Climate change management practices	3.80	1.56	1	5
The Accounting professional should bodies provide guidelines on disclosure of climate change management	3.89	1.05	1	5
The stakeholders should insist disclosure of climate change management	4.25	0.96	1	5

**1. Shareholders**

Climate change management should be made mandatory	4.20	1.01	1	5
The Government should provide guidelines on the disclosure of Climate change management	4.01	1.36	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.96	1.08	1	5
The stakeholders should insist disclosure of climate change management	4.54	0.86	1	5

**2. NGOs**

Climate change management should be made mandatory	3.90	1.10	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.99	1.01	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.95	1.59	1	5
The stakeholders should insist disclosure of climate change management	4.12	1.86	1	5

**3. Suppliers**

Climate change management should be made mandatory	3.56	1.52	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.96	1.69	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change Management	2.63	2.10	1	5
The stakeholders should insist disclosure of climate change management	3.97	1.01	1	5

**4. Stock Brokers**

Climate change management should be made mandatory	3.10	0.96	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.45	.56	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	2.69	1.21	1	5
The stakeholders should insist disclosure of climate change management	2.85	1.01	1	5

**5. Academicians**

Climate change management should be made mandatory	4.12	1.08	1	5
The Government should provide guidelines on the disclosure of Climate change management	4.52	1.25	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.96	069	1	5
The stakeholders should insist disclosure of climate change management	4.52	1.91	1	5

#### 6. Financial Institutions and Banks

Climate change management should be made mandatory	3.96	0.87	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.89	1.07	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	2.96	1.10	1	5
The stakeholders should insist disclosure of climate change management	3.20	0.85	1	5

#### 7. Employees

Climate change management should be made mandatory	4.23	1.25	1	5
The Government should provide guidelines on the disclosure of Climate change management	4.01	1.63	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.96	1.59	1	5
The stakeholders should insist disclosure of climate change management	3.25	0.89	1	5

#### 8. Customers

Climate change management should be made mandatory	4.89	.99	1	5
The Government should provide guidelines on the disclosure of Climate change management	4.52	1.12	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.25	2.09	1	5
The stakeholders should insist disclosure of climate change management	4.96	1.89	1	5

#### 9. Competitors

Climate change management should be made mandatory	3.96	1.52	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.89	0.98	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	2.96	1.25	1	5
The stakeholders should insist disclosure of climate change management	2.89	0.56	1	5

#### 10. Research Analysts

Climate change management should be made mandatory	4.12	0.39	1	5
The Government should provide guidelines on the disclosure of Climate change management	4.01	0.63	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	4.89	1.20	1	5
The stakeholders should insist disclosure of climate change management	4.52	0.79	1	5

#### 11. Public

Climate change management should be made mandatory	3.56	0.23	1	5
The Government should provide guidelines on the disclosure of Climate change management	3.58	0.69	1	5
The Accounting professional bodies should provide guidelines on disclosure of climate change management	3.96	0.85	1	5
The stakeholders should insist disclosure of climate change management	3.45	1.02	1	5

There is no statistical difference (mean and standard deviation) in the views of respondents concerning the proposition of the above statements. The highest mean in respect of all the four statements is 4.89 and lowest mean is 2.63 ( Table 13). Over all, there was a higher demand on the part of the stakeholders to insist on disclosure of climate change management by the Indian corporates. This suggests that there is an appetite amongst Indian corporate stakeholders for mandatory climate change disclosures among the Indian corporates. On the

other hand, it will be seen that, there is a great demand on the Indian Government to formulate guidelines on the practices of climate change management and their disclosure as greater support was provided by all most all respondents (Table 5).

## 5. Concluding remarks

This paper has examined different perceptions on climate change management and their disclosure. It aimed to capture this concept by showing how climate strategies at different organizational levels can be linked to the societal and competitive contexts that companies face, embedded in a stakeholder view. Climate change is currently a prominent example of an environmental issue that primarily has a bearing on business through stakeholders who are trying to influence corporate objectives. Companies have three types of strategic options to respond to or anticipate this stakeholder pressure, each aimed at different stakeholder groups. Depending on attributes such as location, geographical spread, industry, degree of vertical integration and diversification, companies prioritize particular stakeholder groups, which is reflected in their climate strategies containing internal measures, supply-chain measures and/or market-based measures that move beyond the supply chain.

The insights in this paper build on previous publications by the authors, where more empirical information that supports the arguments can be found. Compared to that output, however, that usually adopted a particular theoretical perspective, the current paper has attempted to develop a more integrative approach, to illustrate how institutional, resource-based, supply chain and stakeholder views are all important to characterize and understand corporate strategic responses to a sustainability issue. In the process, an overview has been given of different elements relevant to business and climate change. For academic purposes, we have proposed areas for further empirical research in the years to come.

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